From: Sherm Grossman

To: Microsoft ATR

Date: 1/15/02 4:01pm

Subject: Microsoft Settlement

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**CC:** webmaster@ago.state.ma.us@inetgw

Dear Sir or Madam:

These comments are in opposition to Massachusetts Attorney General Tom Reilly's position on the Microsoft settlement as stated in the January 15, 2002, Boston Globe Public Forum piece, "Microsoft case key to tech's future,"

http://boston.com/dailyglobe2/015/business/Microsoft case key\_to tech\_s\_future+.shtml

In this article, Attorney General Reilly makes suggestions to pursue remedies against Microsoft. In my opinion, that may result in the collapse of one of the world's foremost technology providers and the PC systems it makes work.

Microsoft develops two distinct software product lines: an Operating System (Windows), which acts to assign priorities to internal PC operations and hardware and is rarely seen or worked on by the typical PC user, and applications, which perform specific tasks for the PC user like word processing, spread sheet manipulation and presentation preparation (MS Word, Excel, Power Point).

The product at the core of Mr. Reilly's objections is the Operating System (OS). Developers of applications need to structure their software to function within the parameters specified by an OS. They have to do this for any OS, and many may do so for more than one: like Windows and Linux, for example. However, there is such a thing as optimization: making the applications run efficiently. Most application vendors want to have their product run as fast as possible on as many PCs as possible, so they optimize their product for Windows, the most used OS

Now, even if additional OSs are introduced just because Federal and State Governments believe that will lead to more and better products (it didn't with IBM's OS2), applications will still be optimized for just one, but not all OSs. This will result in a PC having its installed OS being able to run efficiently some, but not all, applications because application developers will not get enough return on their investment to optimize their products for multiple OSs. Good business strategy says that the version of the product that should be most heavily optimized is the one that will be used on the PCs that have the most frequently installed OS. For now, that's Windows.

This is not a restriction on emerging technologies. It is a fact of business, and contradicts Mr. Reilly's objective to have "computer users ... have a full choice of programs," and to "...have [computer users have] the freedom to customize their systems with the programs and software they want." To have the full choice of optimized, efficient and fast-executing software, there should be one prevalent operating system in the same way there is and for years has been, essentially, one prevalent PC hardware architecture based on the original IBM PC. (Before you go there, based on sales and available applications, Apple is really a non-player despite Microsoft providing a version of Office that runs efficiently on Apple systems. Notice how it takes a company the size of Microsoft to provide its flagship application optimized for more than one OS and hardware architecture.)

The chaos surrounding creating competing hardware architectures would be akin to forcing into existence a second personal transportation system in which vehicles would run on tracks. What would be the cost of developing a second infrastructure? What would be the response of the vehicle manufacturers? Would there be as many? Would we still see the same vehicle quality? Would we still have as much vehicle innovation? Would there be as many vehicle choices? What would the vehicles cost?

The same chaos would occur if Windows were gutted so that was no longer the prevalent OS. Windows may devolve in the future, but to force it would be disastrous. Technology evolution and user acceptance is

generally based on rules similar to natural biological selection. Windows may fall into disfavor and be replaced by another OS, but Microsoft may be the company that creates that successor. Why try to artificially prevent that?

Look what has happened with forcing High Definition TV into existence. Local TV program producers for all but the largest markets don't want to invest in HDTV production equipment until broadcasters invest in the new transmission equipment. Networks are reluctant to invest in HDTV equipment because there are insufficient local affiliates that can carry HDTV transmissions. TV set manufacturers don't want to invest in building HDTV sets until broadcasters transmit HDTV programs. Cable service providers don't want to invest in HDTV cable systems until there are HDTV programs in their markets and there are HDTV sets to receive them. Buyers don't want to pay exorbitant prices for HDTV sets and/or HDTV tuners and receiving antennas until there are enough programs being broadcast to make it worthwhile. (The only reason that there are any HDTV sets around is DVDs, and even those sets don't include HDTV tuners.) So, we're in a stand-off situation with the conversion process taking much longer than the Federal Government wanted.

But, the real problem is not HDTV technology, but the decisions that broadcasters need to make about which one of the many picture quality options to transmit. This is contributing to the TV set manufacturers' reluctance to invest in sets that are optimized around one methodology and is keeping the variety of HDTV sets small and their price high.

This sounds similar to the problems that would develop if multiple OSs were edicted into existence or if Microsoft were forced to relinquish their pre-eminent OS-developer position. The PC world would wind up with either fewer applications or the ones that were optimized for all OSs would become considerably more expensive.

In fact, there is more than one OS currently available. The second OS that's most often noted is Linux. Now, how many popular applications are there currently for this OS? Who's stopping software developers from creating them?

As to computer makers not having control of their systems' desktops, Mr. Reilly and the Department of Justice should realize that "computer makers" build hardware, not software, and that ultimately, the user controls what's on the desktop - not the hardware manufacturer, not the software manufacturer, but the user.

And, it's not clear what an "unbundled" version of Windows does for anyone. What application is Mr. Reilly suggesting is now bundled? A browser? Well, it really is possible to install and use a browser other than Internet Explorer (like Netscape); it really is possible to install and use Lotus Smartsuite rather than Microsoft Office (neither of which is bundled with Windows). So what's the issue here?

Here's another similar situation. Think of an automobile dashboard as being like a PC OS and the car radio as an application. At the moment, it's not usually possible to buy a car without some kind of vehicle manufacturers' radio pre-installed. Will the Federal Government and the States require automobile manufacturers to offer all cars without radios so purchasers can buy their own from either the vehicle manufacturer or some other vendor?

Well, right now many cars owners can have their OEM radio replaced with an after-market one. However, not all auto manufacturers' radios have the same dimensions. And, if one examines the choices carefully, one finds that the variety of replacement radios available for Daimler-Chrysler and GM vehicles is far smaller than those available for cars using DIN dimensional standards. (Remember, too, the radio with the oval-shaped front panel used in the Ford Taurus? There don't seem to be any after-market products available for direct replacement.)

Daimler-Chrysler and GM radios happen to be pretty good. But will the Federal Government and the States want a common form factor legislated that may diminish the quality, ease-of-use and feature flexibility of Daimler-Chrysler, GM and Ford radios?

Mr. Reilly also contradicts his objective when he tries to make his point about "...Microsoft disclos[ing] the necessary technical information so that handheld devices, servers and networks can work with Windows..." If Federal and State Governments want this, won't there be more software development for the Windows OS than there is now rather than less? Doesn't this create more products and business for Microsoft? (And, in point of fact, there is more than one OS for handhelds already, and they and servers and networks can work with Windows.)

Finally, perhaps it's wishful thinking, but one seriously doubts that the 3,200 software companies and 200,000 high-tech workers in Massachusetts would ever see any benefit from what Mr. Reilly wants to do to Microsoft.

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